REMARKS

Claims 1-11 are presently pending in the application. Reconsideration and reexamination is respectfully requested in light of the following remarks and amendments.

Claims 1-3 and 5-7 of co-pending U. S. Patent application no. 10/671,151 were provisionally rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 4-6 and 9-11 of the present application (10/821,476).

FIG. 2 was objected to as failing to comply with 37 CFR 1.84(p)(5). Accordingly, a Replacement Sheet is attached herewith amending the QAM Downstream Modulator reference number from "11" to "112."

The disclosure was objected to because of informalities. Accordingly, the following amendments are included with this response: 1) at page 2, line 15, fiber cable "120" is replaced with fiber cable "210;" and 2) at page 2, line 16, premises "145" is replaced with premises "215."

Claim 10 was objected to because of informalities. Accordingly, claim 10 is amended to correct "DCT" to the intended "DHCT."

Claims 1-3, 7, and 8 were rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 7,190,901 ("Farmer") in view of U. S. Publication No. 2002/0147978 ("Dolgonos"). It is believed that claims 1-3, 7, and 8 are patentable over the cited art for at least the following reasons.

Independent claims 1 and 7 were amended to more distinctly claim the present invention. More specifically, the FTTH system includes an ONT and SWRD at each subscriber's premises. Notably, and in accordance with the present invention, each SWRD contains a downstream QAM modulator that modulates IP signals received from the ONT. The modulated signals are then provided to one or more DHCTs, which demodulate the modulated signal in a known manner.

The Examiner states that Farmer does not disclose a QAM modulator for receiving and modulating downstream IP signals. More specifically, Farmer mainly discusses providing a reverse path for legacy equipment in an optical network by reducing reverse RF signals and combining the reduced RF signals with other reverse, or upstream, data packets. The Examiner relies on the teachings of Dolgonos to provide for a QAM modulator .

It is respectfully submitted that Dolgonos does not fix Farmer's failings. Dolgonos teaches, at para. 0035, receiving downstream IP signals at a centrally-located CMTS 26 (FIG. 3), which conventionally includes groups of modulators and demodulators, and forwards the modulated signals to the cable plant 14. Specifically, a set of modulator(s) and demodulator(s), which is included in many sets of modulators and demodulators, services a certain service group, or a certain group of subscribers even if some of the subscribers receive the downstream signals wirelessly. A hub combines the QAM modulated signals and conventional CATV signals and then broadcasts the combined signals over the cable plant.

An antenna node demodulates the modulated signals and converts the signals to OFDM wireless signals for simulcast transmission to subscriber units. A subscriber unit then OFDM demodulates the wireless signals. It is submitted, however, that Dolgonos only discusses centrally-located QAM modulators, QAM demodulators, OFDM modulators, and OFDM demodulators that all service a plurality of subscribers. There is no teaching or implication that every subscriber unit would include a receiving device that QAM modulates received IP signals, and finally a DHCT that QAM demodulates the modulated signals.

Therefore, it is respectfully submitted that neither Farmer nor Dolgonos, either alone or in combination, do not discuss or teach transmitting downstream IP signals to a QAM modulator that is located in a SWRD at every subscriber premises. Accordingly, it is believed that independent claims 1 and 7 are patentable over the cited art. Dependent claims 2-7 and 8-11 further limit claims 1 and 7 and should also be allowable over the cited art.

Claims 4-6 and 9-11 were rejected under 35 U.S.C. 103(a) as being unpatentable over Farmer and Dolgonos in view of U. S. Patent No. 5,481,542 ("Logston"). It is believed that claims 4-6 and 9-11 are patentable over the cited art for at least the following reasons.

As mentioned in the specification of the present invention and Dolgonos (FIG. 3, para. [0035]), a plurality of downstream modulators typically serve different areas of the system where each area has different multiple upstream demodulators. Conventionally, the upstream demodulators are collocated with the downstream modulators, so there is no problem in identifying which downstream modulator needs to respond. In the present invention, however, the downstream modulator is not directly coupled to the upstream demodulator, thereby requiring identification of an associated modulator.

In this conventional way, Logston teaches that demodulation of reverse signals occurs in the headend not at a subscriber's premises (FIG. 2, demodulators 122). As illustrated, the demodulators 122 receive reverse signals from the DHCTs. The demodulators 122 are then coupled to an appropriate modulator 124 that modulates any downstream signals. Service groups are set up between one or more DHCTs and a demodulator 122 and a particular downstream modulator 124. Because the demodulator and the modulator are "grouped," there is, therefore, no requirement for the DHCT to know the address of the modulator 124. Accordingly, Logston does not have a requirement for including an identification number, or address, of a particular downstream modulator in the communication messages.

It is respectfully submitted, therefore, that Farmer, Dolgonos, and Logston, either alone or in combination, do not render dependent claims 4-6 and 9-11 unpatentable.

Reconsideration of the claims 1-11 is respectfully requested.

CONCLUSION

The foregoing is submitted as a full and complete response to the Office Action dated September 21, 2007. Claims 1-11 will be pending in the present application upon entry of the present amendment, with claims 1 and 7 being independent. Based on the amendments and remarks set forth herein, Applicants respectfully submit that the subject patent application is in condition for allowance. Because the claims may include additional elements that are not taught or suggested by the cited art, the preceding arguments in favor of patentability are advanced without prejudice to other bases of patentability.

Upon entry of the foregoing Response, the above-identified patent application includes 2 independent claims. Because Applicants have previously paid for 20 total claims and 3 independent claims, it is believed that no additional fee is due. Should it be determined that any excess fee has been received, the Commissioner is hereby authorized to charge any fees which may be required or credit any overpayment to deposit account #19-0761.

Should the Examiner have any comments or suggestions that would place the subject patent application in better condition for allowance, he is respectfully requested to telephone the undersigned agent at the below-listed number.

Respectfully submitted:

By: _____

WM. BROOK LAFFERTY
Attorney of Record
Reg. No. 39,259
Phone: (770) 236-2114
Fax No.: (770) 236-4806

SEND CORRESPONDENCE TO:

Scientific-Atlanta, Inc.
Intellectual Property Dept. MS 4.3.510
5030 Sugarloaf Parkway
Lawrenceville, GA 30044